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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,262	10/05/2004	Ronaldus Maria Aarts	NL 020282	8728
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EXAMINER				
BAYOU, YONAS A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/510,262

Applicant(s)

AARTS ET AL.

Examiner

YONAS BAYOU

Art Unit

2434

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to applicant's response filed on 01/26/2009.
2. Claims 1-2 and 4-11 are pending.
3. Claims 1, 4 and 10 are amended.
4. Claim 3 is canceled.
5. Claim 11 is a new claim.
6. Applicant's arguments have been fully considered but they are not persuasive.
7. When responding to the Office action, Applicant is advised to clearly point out the patentable novelty the claims present in view of the state of the art disclosed by the reference(s) cited or the objection made. A showing of how the amendments avoid such references or objections must also be present. See 37 C.F.R. 1.111(c).

Response to Arguments

1. Applicant, on page 5, paragraph 4, of the remarks, argues in the method of claims 1 and 10, "Lambrech fails to teach: enabling the ability to identify the listener by comparing identified parameters in audio data with parameters being stored in a database."

Examiner respectfully disagrees and asserts that Lambrecht discloses the HRTF is unique to each individual and is affected by the shape and size of the head, the shape and size of the pinnae, the characteristics of the ear canal and the relationships

of the shoulder to the ear **[abstract]**; the uniqueness of HRTF /identified parameters to each individual can identify the listener by comparing the parameters, see for e.g. how positional errors calculated based on the user input/parameters].

2. Applicant, on page 6, paragraph 3, of the remarks, argues in the method of claim 5, "Lambrecht fails to teach: detecting said first listener parameters used for changing the audio impression of said audio signal, comparing said detected first listener parameters with second listener parameters and playing back said changed audio signal if said detected first listener parameters identify a listener being identical to the listener identified by said second listener parameters."

Examiner respectfully disagrees and asserts that Lambrecht discloses the HRTF is unique to each individual and is affected by the shape and size of the head, the shape and size of the pinnae, the characteristics of the ear canal and the relationships of the shoulder to the ear **[abstract; see above]** and Lambrecht further discloses if sounds from multiple positions were output, positional errors are calculated for each expected perceived position **[5:55-58 and fig. 2]**; as seen above in the abstract, the sound is output from fixed positions and there is an acceptable range of positional errors that a user can listen the audio but if it is out of the acceptable range of errors, the HRTF is adjusted or new HRTF is processed all these teach detecting the positions, comparing the positions and playing back the audio] .

3. Examiner, however, in light of the above submission maintains the previous rejections while considering the amendments to the claims as follows:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambrecht, Patent Number 6,181,800 B1 in view of Thomas et al., Patent Number 7,065,498 B1.

Referring to claims 1 and 10, Lambrecht teaches the HRTF for each individual is unique. The HRTF is affected by the size and shape of the head, the size and shape of the pinnae, the characteristics of the ear canal, and the relationship of the shoulder to the ear. A unique HRTF can be calculated for each individual by performing detailed and time consuming measurements of the head, ear and body. The measurements taken for an individual are converted to a transfer function usable by a processing device to adjust the characteristics of audio signal outputs to individual speakers to simulate positional three-dimensional sound [column 1, lines 24-35 which is

corresponding to allowing access of the personalized audio signal to said listener].

Lambrecht further teaches a method, wherein the listener parameters in the set of head related transfer functions have been chosen between a number of sets of listener parameters each being specific for said listener **[column 2, lines 23-34; selecting the best fit HRTF corresponding to choosing the listener parameters]**. Lambrecht further teaches enabling the ability to identify the listener by comparing identified parameters in audio data with parameters being stored in a database **[abstract]**. Lambrecht does not appear to explicitly teach a method for a service provider to distribute an audio signal to a listener. However Thomas teaches the client establishes communication with the server to identify the customer. To do this, the customer computer system initiates communication with the merchant computer system through communication link using any access protocol, for example transmission control protocol/internet protocol (TCP/IP) **[column 5, lines 15-20; the customer computer system initiates communication with the merchant computer system corresponding to a service provider distributing an audio signal to a listener]**. Thomas and Lambrecht are analogous art because both teach HRTFs or filtering with HRTF's.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method of Lambrecht to include the client establishes communication with the server of Thomas because under control of the dialogue unit, the server then transmits to the client information on a range of video and/or audio products available for purchase, for example by reading header segments of a group of the product files, a variety of techniques collectively known as digital watermarking has

been developed to address the issue of unauthorized or illegal copying of digital video and audio products. Some such techniques result in a copied product being unviewable or inaudible. Other techniques block the copying of a watermarked original by open-circuiting the input stage of a video recorder (VCR) or other recording device when the correct watermark is not detected. Other techniques encode the source purchaser, or other information, to enable identification and tracking of unauthorized copies [1:12-22], please see KSR International Co. v. Teleflex Inc., 550 U.S., 82 USPQ2d 1385 (2007) for further interpretation.

Referring to claim 2, Lambrecht teaches a method for a service provider to distribute an audio signal to a listener, wherein the personalization is performed before distributing said audio signal to said listener **[column 1, lines 52-53; column 2, lines 42-54 and fig. 1 individualized corresponding to personalization]**.

Referring to claim 4, Lambrecht teaches a method for a service provider to distribute an audio signal to a listener, wherein the head related transfer functions have been modified in a substantially inaudible way, where said modification is performed by embedding information into the set of head related transfer functions before filtering the audio signal **[column 2, lines 28-38; adjusting the HRTF is repeated/modified]**.

Referring to claims 5, 6, 8, and 9, Lambrecht teaches a method for a service provider to distribute an audio signal to a listener, wherein the audio impression of the

audio signal has been changed according to first listener parameters being specific for a specific listener, comprising the steps of:

detecting said first listener parameters used for changing the audio impression of said audio signal **[abstract, column 5, lines 55-58 and fig. 2; the positional error corresponding to first listener parameters]**,

comparing said detected first listener parameters with second listener parameters **[abstract, column 5, lines 58-63 and fig. 2]** and

playing back said changed audio signal if said detected first listener parameters identify a listener being identical to the listener identified by said second listener parameters **[abstract, column 5, lines 61-63 and fig. 1; an acceptable range of error stored in the computer 102 corresponding to second listener parameters]**.

Referring to claim 7, Lambrecht teaches a method for a service provider to distribute an audio signal to a listener, wherein first and second listener parameters are parameters to be used in a set of head related transfer functions, and wherein the audio signal has been changed by filtering it using the set of head related transfer functions having listener parameters being specific for a specific listener **[column 1, lines 12-35; the frequency, delays and position of the sound are listener parameters]**.

Referring to claim 11, Lambrecht teaches a method, wherein the listener parameters in the set of head related transfer functions have been chosen between a number of sets of listener parameters each being specific for said listener, thereby

allowing the listener to select an audio impression of specific interest [abstract; adjusting or new HRTF corresponding/related to changing the sets of listener parameters].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YONAS BAYOU whose telephone number is (571)272-7610. The examiner can normally be reached on m-f,7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571-272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yonas Bayou/

Examiner, Art Unit 2434

05/02/2009

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2434